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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/573,110

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EXAMINER

HUG, ERIC J

ART UNIT

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1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/573,110	Applicant(s) SILVA, LUIZ	
	Examiner Eric Hug	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 43-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/22/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 50-58, 68, 72-74, and 76-82 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 50 recites the machine further comprises a "second dewatering belt" (emphasis added). Claim 44, an intervening claim, recites "two circulating, endless, dewatering belts". For examination purposes, it will be assumed that the "second dewatering belt" of claim 50 is in addition to the two dewatering belts of claim 44. The "second dewatering belt" is also recited in claims 51-55, 72, 73, 76, 77, 80, and 82. Correction is requested.

Claim 50 further recites the limitation "the element". There is insufficient antecedent basis for this limitation in the claim. The "element" is also recited in claim 51. It is also unclear what type of element Applicant is intending to claim. Intervening claim 44 recites a "forming element", but a forming element does not fit into the context of claim 50. For examination purposes, the "element" will be considered an element of the pressing zone of intervening claim 49.

All other claims above inherit the indefiniteness of claim 50. It is noted in particular that claim 72 further recites a "second element" in relation to the "element" of claim 50.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 43-50, 59, 61-63, 67-71, 75, 76, and 82 are rejected under 35 U.S.C. 102(b) as being anticipated by Schiel (US 6,004,429).

Schiel discloses a machine for producing a fibrous web such as tissue paper. Referring to Figure 1, the machine includes a headbox 10, twin forming wires including outer forming wire 14 and inner felt 12, a forming roll 16, a pre-press 26 comprising shoe press roll 40, suction bottom roll 38, and dewatering felt 50, and a main press 30 comprising shoe press roll 28 and drying cylinder 60. Each wire or felt is endless and guided by respective guide rolls. These and other features read on the claims as follows:

Claim 43: The forming wires and forming roll makes up a forming region, and the pre-press makes up at least one pressing zone with suction.

Claims 44, 45: The two forming wires are equivalently the claimed two circulating endless dewatering belts. The wires converge to form a material inlet gap and are led over a forming roll.

Claims 46, 67, 75: The pre-press 26 reads on the claimed pressing zone. The pre-press is in front of the main press nip 30 formed by the shoe press roll 28 and the drying cylinder 60. Guide rolls 32, 34 are present for inner felt 12. The inner felt supplies the web to main press nip 30.

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Claims 47, 48: The suction bottom roll of the pre-press 26 reads on the claimed element to which suction is applied.

Claim 59: The shoe press roll of the pre-press 26 forms a longitudinal gap when combined with suction bottom roll 38.

Claim 63: The pre-press (pressing zone) is arranged immediately after the web has been formed and before the web is dried at the drying cylinder 60, therefore the pre-press is deemed to be at a location where the web has a dry content of 8-15% before the pressing zone and greater than 40% after the pressing zone.

Claim 49: Inner felt 12, which reads on the claimed inner belt, leads the web to the pre-press and main press.

Claims 61, 62: The forming wires include an outer wire 14, equivalently a dewatering screen, and an inner felt 12.

Claims 69-71: The two forming wires read on the claimed inner and outer belts and make up the claimed double screen former. The claimed tensions are considered to be operational parameters which do not impart additional structural features to the belts.

Claims 50, 68, 76, 82: Dewatering felt 50 of the pre-press provides an additional dewatering belt. Its claimed tension is considered to be an operational parameter which does not impart additional structural features. Dewatering felt 50 and inner felt 12, which makes up part of the double screen former, read on the claimed two dewatering felts.

2. Claims 43-53, 55-58, 60, 61, 63, 66, 67, 69-71, and 75 are rejected under 35 U.S.C. 102(b) as being anticipated by Turunen (US 4,144,124).

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Turunen discloses a machine for manufacturing tissue paper. Referring to the Figure, the machine includes a headbox 10, a twin wire forming section including outer wire 12 and inner wire 11, a forming roll 13, a press section which includes press rolls 21 and 22 forming press nip N1 with press roll 22 being a suction roll, and a second press nip N2 formed by suction press roll 22 and Yankee drying cylinder 45. An endless fabric or felt 28 loops about press roll 22. Furthermore, fabric 28 and press roll 22 are looped by embossing fabric 30 (see particularly column 7, lines 1-24). Each wire or fabric is endless and guided by respective guide rolls. These and other features read on the claims as follows:

Claim 43: The forming wires and forming roll makes up a forming region, and press nip N1 makes up at least one pressing zone with suction.

Claims 44, 45: The two forming wires are equivalently the claimed two circulating endless dewatering belts. The wires converge to form a material inlet gap and are led over a forming roll.

Claims 46, 67, 75: Nip N1 reads on the claimed pressing zone. Nip N1 is in front of the nip N2 formed by the suction press roll 22 and the Yankee cylinder 45. Guide rolls 15 are present for inner wire 11. The inner wire supplies the web to nips N1 and N2.

Claims 47, 48, 60, 66: The suction roll 22 reads on the claimed element to which suction is applied. It provides the counter element to the Yankee cylinder. The web is fed to the nip formed between the suction roll 22 and the Yankee cylinder.

Claim 63: Nip N1 is arranged immediately after the web has been formed and before the web is dried at the Yankee cylinder, therefore nip N1 is deemed to be at a location where the web has a dry content of 8-15% before and greater than 40% thereafter.

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Claim 49: Inner wire 11, which reads on the claimed inner belt, leads the web to the press nips.

Claim 61: The forming wires include an outer wire 12, equivalently a dewatering screen.

Claims 69-71: The two forming wires read on the claimed inner and outer belts and make up the claimed double screen former. The claimed tensions are considered to be operational parameters which do not impart additional structural features to the belts.

Claims 50-53, 55-58, 68: Dewatering felt 28 and embossing fabric 30 about suction roll 22 provide additional dewatering belts. The dewatering felt is arranged within the loop of the embossing fabric. The felt is equivalently a non-structured screen with a smooth surface. The embossing fabric is equivalently a structured screen with zone-wise permeability in order to produce a patterned web. The claimed tension is considered to be an operational parameter which does not impart additional structural features to either belt.

3. Claims 43-50, 54, 60-67, 69-71, and 75 are rejected under 35 U.S.C. 102(b) as being anticipated by Herman (US 2003/0136018).

Herman discloses an apparatus for manufacturing fibrous webs such as tissue or hygiene material having a three-dimensional structure. Referring to Figure 3, the apparatus comprises a headbox 48, a twin wire forming zone comprising outer band 42 and inner imprinting band 14 forming a gap 46 therebetween, a forming roll 46, an air displacement press 56 comprising a suction roll 64 (among four rolls which bound a pressure space 58) and an anti-rewetting membrane 36, and a press nip 18 formed by a suction press roll or shoe press 22 and a Yankee drying cylinder 20.

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Claim 43: The forming bands and forming roll makes up a forming region, and the displacement press makes up at least one pressing zone with suction.

Claims 44, 45: The two forming bands are equivalently the claimed two circulating endless dewatering belts. The bands converge to form a material inlet gap and are led over a forming roll.

Claims 46, 67, 75: The displacement press reads on the claimed pressing zone. The displacement press is in front of the press nip 18 formed by the press roll 22 and the Yankee drying cylinder 20. Guide rolls are present for inner band 14. The inner band supplies the web to the displacement press and to press nip 18.

Claims 47, 48, 60, 66: The suction roll 64 of the displacement press reads on the claimed element to which suction is applied. The suction press roll 22 of press nip 18 also reads on the claimed element to which suction is applied. The latter serves as a counter element to the Yankee cylinder. The web is fed to the nip formed between the suction roll 22 and the Yankee cylinder.

Claim 63: The displacement press (pressing zone) is arranged immediately after the web has been formed and before the web is dried at the drying cylinder 60. It is located between where the web has a dry content of 8-15% and greater than 40%, as indicated in Figure 3.

Claim 49: Inner band 14, which reads on the claimed inner belt, leads the web to the press nips.

Claims 61, 62: The forming band include an outer wire 42, equivalently a dewatering screen, and an inner band 14, equivalently a felt.

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Claims 64, 65: A suction device 16' is located between the forming element and the press nip 18. It is deemed to be in a region correspondingly approximately to the claimed dry content of the web.

Claims 69-71: The two forming bands (inner and outer belts) make up the claimed double screen former. The claimed tensions are considered to be operational parameters which do not impart additional structural features to the belts.

Claims 50, 54, 68: Rewetting membrane 36 of the displacement press provides an additional dewatering belt. It is equivalently a TAD screen, as air passes through the fabric while in the displacement press. Its claimed tension is considered to be an operational parameter which does not impart additional structural features.

Allowable Subject Matter

Claims 72-74 and 77-81 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The claims are deemed allowable for additionally providing the claimed devices within the loop of the second dewatering belt in order to obtain the overall claimed combinations.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is (571) 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Hug/
Primary Examiner, Art Unit 1791